

Integrating Sciences Through Energy

SUPPLEMENTAL ACTIVITIES		
Workshop 1	2 hours	Pre-course meeting: Web 2.0 Skill Introduction and Development. 2 hours. This activity will occur prior to the start of the university led science course and will provide an orientation for teachers on the lesson development process, resources and tools.
Course-related inquiry-based activity development (preliminary lesson activities)	8 hours	During the university-led course delivery, teachers will begin to develop inquiry-based activities for their students, aligned with the course content. 8 hours. These activities will be developed with the support of the course K-12 co-instructors and Teacher Learning Center Directors, and content accuracy of the activities will be reviewed by the university faculty. These activities will become the foundation for the inquiry-based lessons teachers will develop for use in their classrooms. Teachers will begin to use the project Science Learning Community wiki for guidance and support.
Workshop 2	(2 hours) facilitated online	MCAS STEM Data Analysis - Curriculum Mapping. (2 hours). In this facilitated online workshop, teachers will develop curriculum mapping skills based on analysis of MCAC STEM data. The results of this analysis will be used by teachers in developing their lessons utilizing inquiry-based activities. Upon completion of this workshop, teachers will complete stage 1 type activities as described in the site-based supplemental activities section narrative (use existing web-based resources of applications).
Workshop 3	(3 hours) facilitated online	Implementing 2.0 Strategies in the Classroom. (3 hours). In this facilitated online workshop, teachers will learn about 2.0 strategies for use in their classroom, and will identify those strategies that they will use in developing their inquiry-based lessons.
Workshop 4	(3 hours) facilitated online	Science Resources for Student Investigations. (3 hours). In this facilitated online workshop, teachers will explore existing web-based content or rich internet applications (RIA) that are available free through the internet for use in their science classrooms. Teachers access to school based science resources and equipment will also be considered for use in developing student investigation skills.
Workshop 5	(3 hours) facilitated online	Formative Assessment: Developing and Using Assessment Information in Teaching and Learning. (3 hours). In this facilitated online workshop, teachers will learn how to develop formative assessment tools for use in their classrooms, to determine their students understanding and misconceptions of science content before and during their teaching of key concepts.
Workshop 6	(3 hours) facilitated online	Scientific Investigation Activities in the Classroom. (3 hours). In this facilitated online workshop, teachers will learn about and develop scientific investigation activities for their classrooms that align with the learning needs of their students and the curriculum standards for their schools. Upon completion of this workshop, teachers will have completed stage 2 type activities as described in the site-based supplemental activities section of the narrative (use existing web-based resources of applications).
Workshop 7	(5 hours) facilitated online	Lesson Development, Pilot Test and Learning Community Collaboration. (5 hours). In this facilitated online workshop, teachers will develop and implement their inquiry-based lessons in their classrooms. They will develop their lessons by obtaining feedback and sharing their learning with other teachers, K-12 and university faculty, and project staff in the online Science Learning Community environment. Teacher will implement their inquiry-based lessons in their classrooms. Upon completion of this workshop, teachers will complete stage 3 type activities as described in the site-based supplemental activities section narrative (use existing web-based resources of applications).
Workshop 8	3 hours	Callback for Lesson Development Sharing. 3 hours. In this activity, teachers will come together and share the results of their lesson development and implementation. Lessons learned and promising practices will be identified.